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The Primary Site is a semi-annual publication of the Wyoming Cancer Surveillance Program (WCSP).

This and previous issues are also available online at:

<http://www.health.wyo.gov/phsd/wcsp/news.html>

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The Primary Site

Reaching the Highest Standards

The Wyoming Cancer Surveillance Program received Gold Certification in 2008 from NAACCR (The North American Association of Cancer Registries).

This accomplishment by the WCSP was not without the partnership of many health facilities, laboratories and physician offices located within and out of the state of Wyoming. Without you as an essential piece of this formidable puzzle, the WCSP would not be able to achieve this goal. Your submission of cancer records to the WCSP in a timely manner was critical in achieving our goal! It's only with your help that our data can be accurate and complete.

I would also like to thank the staff of the WCSP in achievement of the Gold Standard. Without your persistence in collecting the data and attention to detail again this goal would have been unachievable.

Congratulations to everyone involved in achieving the Gold Standard in 2008!



To Sun or Not???

Are we tired of being preached to in regards to sun screens and sun exposure? My generation even developed the Tanning Bed for year around tans and the young and old are using them religiously. Not me, as I am a survivor of the dreaded "skin cancer".

"I'm sorry, but you have a "little" cancer". This is what I heard after having an odd looking mole removed. Scared? Definitely! Any time you hear the "C" word for a diagnosis, all sorts of reactions, emotions and fears creep to the surface. I am able to pin point the sunburn that caused my melanoma.

Sun screen when I was a child, was zinc oxide (white and goopy) and only old people used it on their noses. I never thought about protecting my skin, in fact, I was one of the "sun worshipers" in high school and college; I even used an old fashioned sun lamp to help the tan get to a deeper brown. I was not aware of the causes of skin cancer. My grandmother had a basal cell cancer removed on her face, but no one advised me that it was caused by the sun.

We are now seeing the results of our sun exposure as skin cancer is on the rise. "Sun worshipers" in their youth, may develop skin cancer decades later.

Melanoma is the most aggressive and also the most serious skin cancer. Melanoma is currently the fastest growing cancer for young adults. It is one of the most common cancers in women, second only to breast cancer. When caught early melanoma is very treatable, but if it metastasizes to other parts of the body, it is more difficult to treat. Approximately 8000 people a year die from melanoma.

Squamous cell carcinoma of the skin is a scaly lesion. It is more prevalent in men than women, probably due to men working in the sun without protection on their head, face, ears, and back of hands. Squamous cell carcinoma, that arise from sun- damaged skin, are more treatable and metastasize less than lesions due to skin trauma from radiation treatments. Lesions on the lower lip are more apt to metastasize than other location.

Basal Cell Carcinoma of the skin is the least aggressive and the most common skin cancer. It seldom metastasizes, but can grow and invade surrounding tissue. The face is the most common location, but 20% of basal cell carcinoma can develop in areas that are not exposed to the sun. It is suggested that basal cell carcinoma may not be due to prolonged exposure to the sun, but by intermittent exposure, such as on vacation at the beach. Basal Cell Carcinoma usually appears on the skin after the age of 50, but the sun exposure was years earlier.

Therefore; I choose to use sun screen and avoid outdoor activities between 10 am and 4 pm. My mantra is that "light (untanned) skin is beautiful".

A question we should ask ourselves, is why do we think that tanned skin is beautiful? As we age tanned skin gets more wrinkles and looks like leather and to make matters worse, tanned skin has a higher chance of developing cancer.

Submitted by Vicki Moxley

Ref: www.medicinenet.com/skin_cancer/article.htm

LCIS of the Breast

One of the most common questions we hear at the WCSP is, "What is considered a reportable cancer?" Since we adhere to rules and guidelines provided to us by a number of organizations, we are able to determine what is reportable by following those guidelines.

Recently we were asked if LCIS of the Breast was a reportable cancer. LCIS stands for Lobular Carcinoma In Situ. We know that the term "in situ" means "in place". In general, in situ means that there are abnormal cancer cells present which have not spread past the tissue boundaries where they develop. LCIS is characterized by the appearance or sharp increase in the number of abnormal cells in the milk-producing lobules of the breast. The term LCIS is misleading and the more appropriate term is Lobular Neoplasia.

The stage for LCIS is a 0, but it is not technically a cancer or carcinoma. LCIS/Lobular Neoplasia is only a marker of Cancer, and for women who develop and invasive lobular carcinoma, LCIS is a direct precursor. According to the NCI, a woman diagnosed with LCIS has a 25% chance of developing an invasive form of breast cancer within her lifetime (lobular or infiltrating ductal carcinoma).

Although LCIS increases the chances of having breast cancer, most women (75%) with the diagnosis do not develop breast cancer. LCIS is more common in premenopausal women, but can be diagnosed at any age.

Recently, with the improvements in breast cancer screening, and mammography techniques, the diagnosis

of LCIS is increasing. LCIS rarely shows on a mammogram but is usually discovered by biopsy of a breast lump. Treatments for LCIS include close monitoring through clinical or self breast exams, and for women with a strong family history of breast cancer, prophylactic mastectomy, Tamoxifen®, or enrollment into a treatment protocol utilizing new anti-cancer drugs.

If you are a hospital registrar and the pathologist in your lab utilizes the WHO terminology and considers the lobular neoplasia cases to be the same as Lobular Carcinoma, in situ, then your cancer committee should create a policy for handling these cases. The AJCC breast committee will address this issue again in the upcoming 2009 edition of the Cancer Staging Manual.

For more information, conduct a Google search on “LCIS of the breast”.

Submitted by Deb Broomfield

Ref: <http://www.Imaginis.com/breasthealth/lcis>

Today's Technology

The “oldest description of cancer ...was discovered in Egypt and dates back to approximately 1600 B.C. The Edwin Smith Papyrus, or writing, describes 8 cases of tumors or ulcers of the breast that were treated by cauterization, with a tool called "the fire drill." The writing says about the disease, ‘There is no treatment.’ ”¹

Now fast forward to the twenty-first century. For quite some time scientists have known that cancer can be caused by chemicals, radiation, viruses, and sometimes seem to run in families. But after much research on DNA and genes, they have also learned that it is the damage to DNA by chemicals and radiation or introduction of new DNA sequences by viruses that often lead to the development of cancer.

Many people worry about recent reports on the carcinogens we're exposed to daily. While some carcinogens do not act on DNA directly, they may cause cells to divide at a faster rate, which could increase the chances that DNA changes will occur. Carcinogens are everywhere! Now researchers report microwave buttered popcorn may cause cancer. What are we to do? Most agree that anything in moderation is the key. The public can cut down on poor habits such as

drinking and tobacco use, maintain a healthier diet, and increase physical activity. But all of these actions alone are not enough.

EARLY DETECTION!!!!!!!!!!!!!!

It can't be said enough....early detection and treatment is essential for a favorable outcome when it comes to cancer. Even if one lives a healthy lifestyle, it is important to review family history. It could provide important clues such as an alteration in the genes known as BRCAI and BRCAII, a major cause of familial breast cancer. Find out which cancer screenings are right for you based on your age, gender and family history, and discuss these with your doctor. Screening can prevent or detect cancer at its earliest, most treatable stage. You may visit the following websites for more history lessons and information on healthy living and cancer screening:

Today's technology, for early detection of cancer, far exceeds that of ancient Egypt.

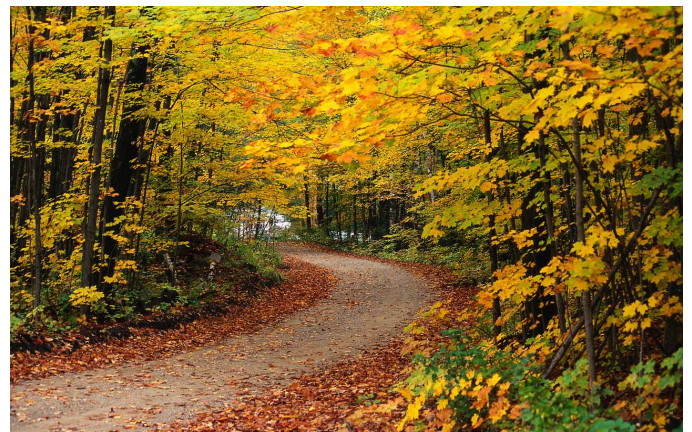
And don't forget to add a healthy dose of humor every day!

¹ “The History of Cancer,” [www.cancer.org](http://www.cancer.org/docroot/CRI/content/CRI_2_6x_the_history_of_cancer_72asp), 2008, American Cancer Society, 28, Aug. 2008 <http://www.cancer.org/docroot/CRI/content/CRI_2_6x_the_history_of_cancer_72asp>

Submitted by Deneen Shadakofsky

Ref: http://www.cancer.org/docroot/PED/ped_2.asp

Ref: <http://www.cancer.org/docroot/subsite/greatamericans/index.asp>



**The following is an excerpt from the article
“Updates in Imaging Technologies” Pub-
lished in M.D. NEWS Vol 8. No7**

“Tracking Tumors”

“Imagine having access to a device that can not only locate the exact position of tumors, but also “tell” physician’s precisely what radiation dose the tumor absorbed. Engineers at Purdue University are developing a wireless injectable device that can do just this.

Babak Ziaie is an associate professor at Purdue’s School of Electrical and Computer Engineering and a researcher at Purdue’s Birck nanotechnology Center. He is currently leading the team that is testing the prototype of such a device. Known as a wireless implantable passive microdosimeter. Ziaie predicts that the device will be ready for clinical trials by 2010.

Ziaie and his fellow researchers are working in collaboration with researchers at the University of Texas Southwest Medical Center, Dallas.

The imaging systems currently used provide a three-dimensional fix on the shifting position of tumors during therapy. But, there are drawbacks to this imaging. It is difficult to use during radiation therapy, expensive and sometimes requires additional X-rays, which can further damage tissues upon repeated use.

The new device employs radiofrequency identification (RFID) technology, which requires no X-rays. It requires no batteries and is activated with electrical coils that are placed next to the patient. The prototype device is enclosed in a glass capillary that is small enough to inject into a tumor with a syringe, and within it is a miniature version of dosimeters worn by workers involved in jobs that expose them to radioactivity. This dosimeter provides information about the cumulative dose of radiation the tumor is receiving over time.

“It’s a radiation dosimeter and a tracking device in the same capsule and will be hermetically sealed so

that it will not have to be removed from the body,” said Ziaie, who has a dual appointment at Purdue’s Weldon School of Biomedical Engineering.

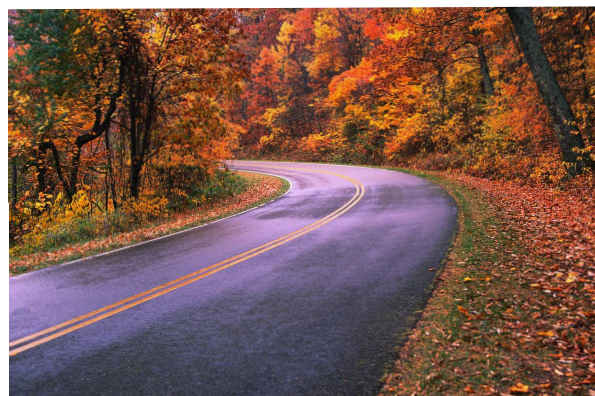
One advantage of the technology is that it does not require intricate circuitry, which could make the device easier and less expensive to manufacture than more complex designs. The system consists of simple electronic devices called capacitors and coils.

The device has a diameter of about 2.5 millimeters, or thousandths of a meter, and is about 2 centimeters long, making it small enough to fit inside a large-diameter needle for injection with a syringe. The current size is small enough to be used in tumors, but researchers will work to shrink the device to about ½ millimeter in diameter and half its current length, roughly the size of a rice grain, said Ziaie, who is working with Byunghoo Jung, a Purdue assistant professor of electrical and computer engineering.

In 2006, Ziaie and fellow researchers, including Chulwoo Son and Byunghoo Jung, reported their findings from their first miniature prototype of this device, but it lacked sensitivity and was too large for implantation, according to Ziaie.

The new prototype is smaller and more sensitive, and was tested with radioactive cobalt. Their findings are included in the June 2008 issue of *IEEE Transaction on Biomedical engineering*. The National Science Foundation is funding the research, with a two year grant from the National Institutes on Health.”¹

¹Liz Meszaros, “Updates in Imaging Technology, ‘Tracking Tumors’”, *M.D. NEWS* Vol.8, No.7, August 2008, p.17-18.



ANNOUNCEMENTS

2009 WYOMING CANCER CONFERENCE

The 2009 Cancer Conference “Saddle up for the Cure” will be convening at the Holiday Inn , Sheridan Wyoming, April 29-30, 2009

There will be a wide variety of tracks from which to attend:

Tracks to be included:

- Cancer Registry
- Providing support, to patients, survivors and caregivers
- Breast and Cervical Cancer
- Community Education around Cancer Control (prevention and life style choices)
- Screening and Treatment Options

Kevin Sharp will be the featured entertainment for the night of April 29th. Kevin is an award-winning vocalist, entertainer, cancer survivor and motivational speaker.

Please mark your calendars to join us in the informative conference.

2008-2009 NAACCR WEBINARS

Do you feel like you have to jump through hoops to get cancer registry and cancer surveillance training? Are you looking for training that eliminates travel associated with training and minimizes the time away from your desk? If so, the NAACCR 2008-2009 Cancer Registry and Surveillance Webinar Series is for you.

The 2008-2009 NAACCR webinar series will include twelve webinars, one each month, beginning in October 2008 through September 2009. Six of the twelve webinars will focus on site-specific data collection and will include information on data items required by all standard setters. The subject matter will be pertinent to central and hospital registry staff. The remaining six webinars will focus on other aspects of cancer surveillance and data collection, three of which are pertinent to central and hospital registry staff and three of which are more pertinent to central registry staff. However, place of employment does not restrict participation in any of the webinars.

Go to the NAACCR website, www.naaccr.org, for a registration form and complete schedule. Contact Shannon Vann (svann@naaccr.org, 217-698-0800 ext. 9) or Jim Hofferkamp (jhofferkamp@naaccr.org, 217-698-0800 ext. 5) for answers to your questions about the 2008-2009 webinar series. Please forward this message to your data submitters.

SAVE THE DATE

North American Association of Central Cancer Registries (NAACCR) 2009 Conference: June 13-20, 2009
San Diego, California - 2010 Quebec City, Quebec, Canada for more information see website www.naaccr.org

National Cancer Registrars Association (NCRA) Educational Conference 2009: May 30 – June 2, 2009
New Orleans - 2010 Conference April 20-23 Palm Springs, California for more information see website www.ncra-usa.org



Please visit Us

The WCSP is located at the Wyoming Department of Health
within the Preventive Health and Safety Division:

<http://www.health.wyo.gov/PHSD/wcsp/index.html>

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